CLAIMS:

1.   An object detection system including radar detection means (2) that detects an object

using a radar, image detection means (3) that detects an object using an image, and collating

5   means (4) that performs collation between a detection result of the radar detection means (2)

and a detection result of the image detection means (3),

           the object detection system being characterized in that the collating means (4) detects a

combination of an object detected by the radar detection means (2) and an object selected

among those detected by the image detection means (3), which is the closest to the object

10   detected by the radar detection means (2), detects a combination of an object detected by the

image detection means (3) and an object selected among those detected by the radar detection

means (2), which is the closest to the object detected by the image detection means (3),

determines whether there is a coincidence between the combination of the object detected by

the radar detection means (2) and the selected object as being closest thereto and the

15   · combination of the object detected by the image detection means (3) and the selected object as

being closest thereto, and determines, when there is the coincidence, that the object detected by

the radar detection means (2) is the same as the object detected by the image detection means

(3).

20   2.   The object detection system according to claim 1, characterized in that the radar

detection means (2) comprises at least one of a millimeter-wave radar and a laser radar.

· 3.   The object detection system according to claim 1 or 2, characterized in that the image

detection means (3) comprises a stereo camera.

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4.   A method of detecting an object in a system (1) including radar detection means (2)

that detects an object using a radar, image detection means (3) that detects an object using an

image, and collating means (4) that performs collation between a detection result of the radar

detection means (2) and a detection result of the image detection means (3);

the method being characterized by comprising the steps of;

detecting a combination of an object detected by the radar detection means (2) and an object selected among those detected by the image detection means (3), which is the closest to the object detected by the radar detection means (S1, S2),

detecting a combination of an object detected by the image detection means (3) and an object selected among those detected by the radar detection means (2), which is the closest to the object detected by the image detection means (S3, S4),

determining whether there is a coincidence between the combination of the object detected by the radar detection means (2) and the selected object as being closest thereto and the combination of the object detected by the image detection means (3) and the selected object as being closest thereto, and;

determining, when there is the coincidence, that the object detected by the radar detection means (2) is the same as the object detected by the image detection means (S5).

5.   The method according to claim 4, characterized in that the radar detection means (2) comprises at least one of a millimeter-wave radar and a laser radar.

6.   The method according to claim 4 or 5, characterized in that the image detection means (3) comprises a stereo camera.

7.   An object detection system comprising:

a radar detection unit (2) that detects an object using a radar;

an image detection unit (3) that detects an object using an image; and

a collating unit (4) that performs collation between a detection result of the radar detection unit (2) and a detection result of the image detection unit (3), wherein;

the collating unit (4) detects a combination of an object detected by the radar detection unit (2) and an object selected among those detected by the image detection unit (3), which is the closest to the object detected by the radar detection unit (2), detects a combination of an object detected by the image detection unit (3) and an object selected among those detected by

the radar detection unit (2), which is the closest to the object detected by the image detection

unit (3), determines whether there is a coincidence between the combination of the object

detected by the radar detection unit (2) and the selected object as being closest thereto and the

combination of the object detected by the image detection unit (3) and the selected object as

5   being closest thereto, and determines, when there is the coincidence, that the object detected by

the radar detection unit (2) is the same as the object detected by the image detection unit (3).

8.   The object detection system according to claim 7, wherein the radar detection unit (2)

comprises at least one of a millimeter-wave radar and a laser radar.

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9.   The object detection system according to claim 7 or 8, wherein the image detection

unit (3) comprises a stereo camera.

10.   A method of detecting an object in a system (1) including a radar detection unit (2) that

15   detects an object using a radar, an image detection unit (3) that detects an object using an

image, and a collating unit (4) that performs collation between a detection result of the radar

detection unit (2) and a detection result of the image detection unit (3),

            the method comprising the steps of;

            detecting a combination of an object detected by the radar detection unit (2) and an

20   object selected among those detected by the image detection unit (3), which is the closest to the

object detected by the radar detection unit (S1, S2),

            detecting a combination of an object detected by the image detection unit (3) and an

object selected among those detected by the radar detection unit (2), which is the closest to the

object detected by the image detection unit (S3, S4),

25   determining whether there is a coincidence between the combination of the object

detected by the radar detection unit (2) and the selected object as being closest thereto and the

combination of the object detected by the image detection unit (3) and the selected object as

being closest thereto, and;

determining, when there is the coincidence, that the object detected by the radar

detection unit (2) is the same as the object detected by the image detection unit (S5).

11.   The method according to claim 10, wherein the radar detection unit (2) comprises at

least one of a millimeter-wave radar and a laser radar.

12.   The method according to claim 10 or 11, wherein the image detection unit (3)

comprises a stereo camera.